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WATER SUPPLY OUTLOOK FOR OREGON



U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

OREGON DEPARTMENT OF WATER RESOURCES

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
FEB. 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

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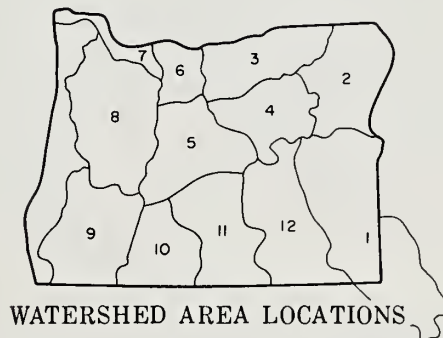
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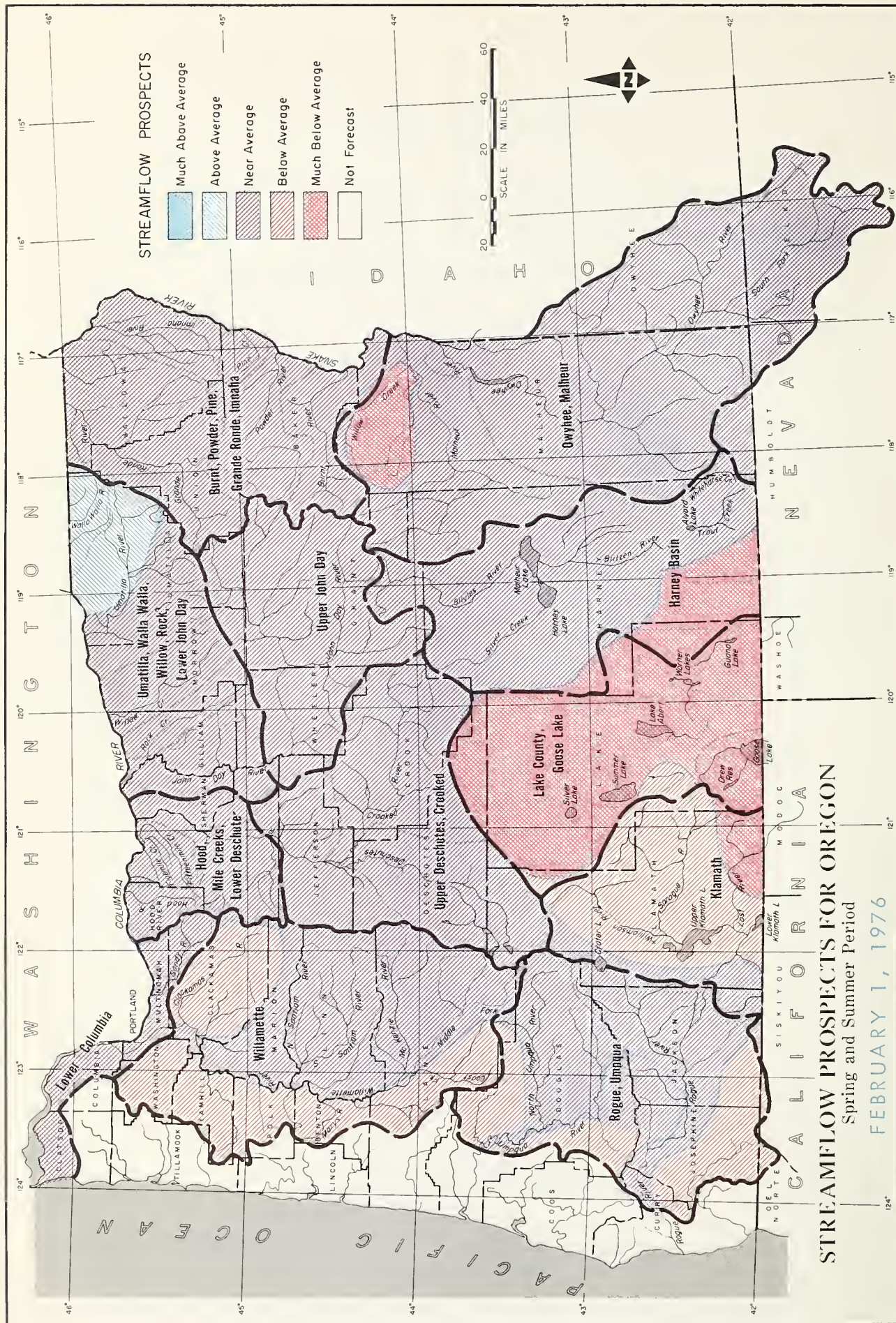
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WATERSHED AREA LOCATIONS



STREAMFLOW PROSPECTS FOR OREGON

Spring and Summer Period

FEBRUARY 1, 1976

WATER SUPPLY OUTLOOK for OREGON

FEBRUARY 1, 1976

The water supply picture for most water users looks good. The snow-pack is average to above over most of the state. Poor snow cover does exist in the Siskiyou Mountains and Lake County. Precipitation was below normal this past month except in the Willamette Valley and in northeastern Oregon, where it was normal. Reservoir storage is even better than last year's excellent condition. The only shortages anticipated are for users dependent on direct streamflow diversions in those areas of the state with poor snow cover.

SNOW COVER

The mountain snow pack is 90 to 115 percent of normal in almost every area of the state. Exceptions are watersheds heading in lower elevation areas such as the Tualatin in the Coast Range, the Siskiyou Mountains in southern Oregon, Bully Creek in Malheur County, and all of Lake County. The snowpack is 50 to 70 percent of average in these areas. The best snow cover is in the Blue Mountains above Pendleton at 135 percent of normal.

PRECIPITATION

The precipitation pattern during the November-January winter period has varied around the state. The northern one third of the state has received near normal amounts while Lake and Klamath Counties received the least amounts, 40 to 60 percent of average. The rest of the state has recorded precipitation 60 to 90 percent of normal. Most of the January precipitation came during the first two weeks of the month and since that time it has been cold and dry.

SOIL MOISTURE

Soils under the snowpack generally contain an average amount of moisture for this time of year.

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RESERVOIR STORAGE

Twenty-six major irrigation reservoirs contain 2,239,000 acre feet of water. This is 126% of average and better than last year's 110 percent.

STREAMFLOW

Streamflow since the start of the water year in October has been above average. Streamflow forecasts for representative Oregon rivers are as follows.

<u>STREAM</u>	<u>PERIOD</u>	<u>FORECAST % OF AVERAGE</u>
Owyhee Reservoir net Inflow	Feb.-July	90
Grande Ronde at La Grande	March-Sept.	104
Deschutes at Benham Falls	April-Sept.	106
Willamette at Salem	April-Sept.	106
Rogue at Raygold	April-Sept.	106
Klamath Lake net Inflow	Feb.-Sept.	85
Chewaucan near Paisley	March-July	71

These forecasts assume normal weather conditions will occur during the forecast period.

This report contains data furnished by the Oregon Department of Water Resources, U. S. Geological Survey, NOAA National Weather Service and other cooperators.



WATER SUPPLY OUTLOOK

OWYHEE, MALHEUR WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLIES THIS NEXT SUMMER SHOULD BE ADEQUATE. SNOW COVER IS NEAR NORMAL EVEN THOUGH WINTER PRECIPITATION HAS ONLY BEEN 60% OF AVERAGE. LOWER ELEVATION STREAMS SUCH AS BULLY CREEK DO HAVE BELOW AVERAGE SNOW. SOIL MOISTURE IS ABOUT AVERAGE. RESERVOIR STORAGE IS EXCELLENT AND PROJECTED STREAMFLOW SHOULD BE NEAR AVERAGE EXCEPT FOR STREAMS SUCH AS BULLY CREEK.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Ac. Feet	Percent of Average		Last Year	Average ^c
Bully Creek at Warm Springs	8.9	66	March-May		13.5
Malheur near Drewsey	102	93	Feb.-July		110
	66	91	Apr.-Sept.		72
Malheur, North Fork at Beulah	73	90	Feb.-July		81
	56	87	Apr.-Sept.		64
Owyhee Reservoir net Inflow	460	90	Feb.-July	1,109	510
	272	82	Apr.-Sept.	917	332

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second. Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	1000	May 24	May 24
	250	June 20	June 20

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Antelope	70.0	--	--	8.9
Beulah Reservoir	60.0	24.6	26.1	24.8
Bully Creek	30.0	15.0	11.5	15.0
Owyhee	715.0	623.0	432.7	407.9
Warm Springs	191.0	131.6	121.2	80.3

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Malheur River	1	123	103
Owyhee River	3	135	95

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Jordan Creek	2	87	85
Malheur River	4	97	108
Owyhee River	4	60	88

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE,
IMNAHA WATERSHEDS
OREGON

GENERAL OUTLOOK

WATER SUPPLIES THIS NEXT SUMMER SHOULD BE AMPLE. THE SNOW COVER IS AVERAGE TO ABOVE. WINTER PRECIPITATION HAS BEEN NEAR NORMAL AND SOIL MOISTURE BENEATH THE SNOWPACK IS ADEQUATE. RESERVOIR STORAGE IS VERY GOOD FOR THIS TIME OF YEAR.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Bear near Wallowa	65	98	Apr.-Sept.		66
Burnt near Hereford	49	103	Feb.-July		48
	35	108	Apr.-Sept.		33
Catherine near Union	68	105	Apr.-Sept.		65
Eagle Creek abv. Skull Creek	178	102	Apr.-July		175
	194	102	Apr.-Sept.		190
Grande Ronde at La Grande	205	104	Mar.-Sept.	306	197
	177	112	Apr.-Sept.	244	158
Hurricane near Joseph	46	98	Apr.-Sept.		47
Imnaha at Imnaha	292	95	Apr.-Sept.		307
Lostine near Lostine	121	97	Apr.-Sept.		125
Powder near Sumpter	51	94	Apr.-July		55
	52	93	Apr.-Sept.		56
Wallowa, East Fork near Joseph	12.7	99	Feb.-Sept.		12.8
	11.0	97	Apr.-Sept.		11.4

RESERVOIR STORAGE (Thousand Ac. Ft.)

RESERVOIR	Usable Capacity	Usable Storage			END OF MONTH
		This Year	Last Year	Average ^c	
Phillips Lake	73.5	58.3	53.4	--	
Thief Valley	17.4	17.4	17.4	16.4	
Unity	25.2	12.7	12.2	10.7	
Wallowa Lake	37.5	26.3	25.4	21.2	

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Burnt River	4	109	112
Grande Ronde River above La Grande	4	105	121
Powder River	5	100	98
Wallowa, Imnaha, Catherine Creek	6	108	109

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Burnt, Powder	1	104	68
Grande Ronde, Catherine Creek, Imnaha River	2	116	100

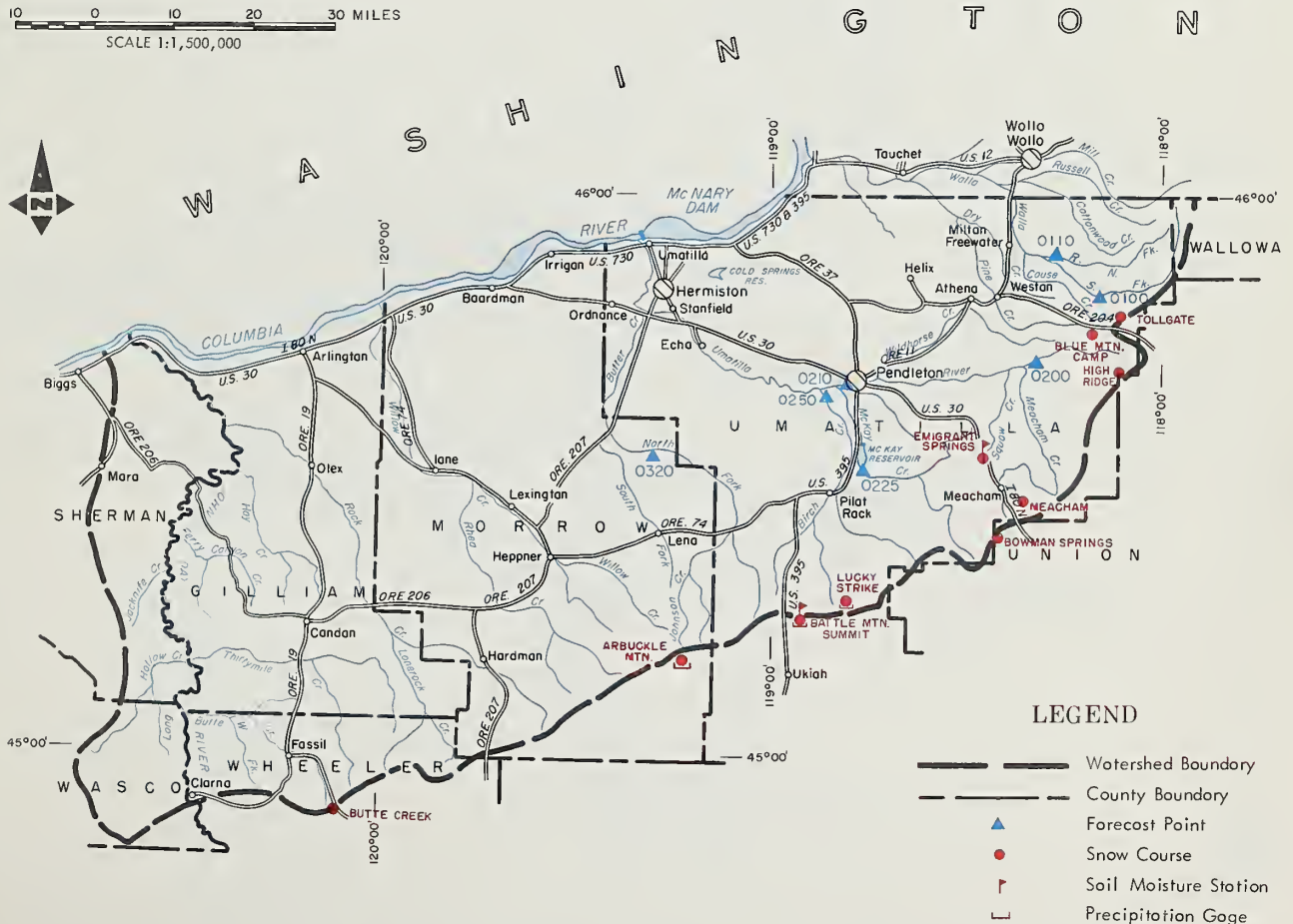
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLIES SHOULD BE GOOD. THE MOUNTAIN SNOW COVER IS ABOVE AVERAGE IN THE NORTH END OF THE BLUE MOUNTAINS AND AVERAGE IN BOTH COLD SPRINGS AND MCKAY. WINTER PRECIPITATION TO DATE HAS BEEN NEAR NORMAL. STREAMFLOW THIS SUMMER SHOULD BE GOOD.

10 0 10 20 30 MILES
SCALE 1:1,500,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Birch Creek at Rieth	26	95	Feb.-July		28
Butter Creek near Pine City	16	100	Apr.-Sept.		15.9
	11.1	97	Mar.-July		11.4
McKay near Pilot Rock	27	111	Apr.-Sept		24
Umatilla near Gibbon	112	116	Mar.-Sept.		97
	86	115	Apr.-Sept.		75
Umatilla at Pendleton	216	108	Mar.-Sept.		200
Walla Walla, South Fork near Milton	87	111	Mar.-Sept.		79
	73	111	Apr.-Sept.		66

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 22	May 22

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Cold Springs	50.0	33.9	26.2	31.2
McKay	73.8	48.2	43.1	31.0

SUMMARY of SNOW MEASUREMENTS

(CDMPARISDN WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
McKay Creek	3	117	120
Umatilla River	3	114	136
Walla Walla River	2	108	127

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK UPPER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

WATER SUPPLIES SHOULD BE NEAR NORMAL. THE MOUNTAIN SNOW PACK IS SLIGHTLY ABOVE AVERAGE, AND SOIL MOISTURE BENEATH THE SNOW IS NEAR AVERAGE. WINTER PRECIPITATION TO DATE HAS BEEN BELOW AVERAGE. STREAMFLOW THIS SUMMER SHOULD BE NEAR NORMAL.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Camas Creek near Ukiah	46	107	Mar.-July		43
	36	109	Apr.-Sept.		33
John Day, Middle Fork at Ritter	126	98	Mar.-July		129
	112	104	Apr.-Sept.		108
John Day, North Fork at Monument	662	102	Mar.-July		646
	566	105	Apr.-Sept.		540
Strawberry near Prairie City	7.2	100	Mar.-July		7.2
	7.3	96	Apr.-Sept.		7.6

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
John Day above Dayville	7	112	106
John Day, North Fork	5	102	103

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
John Day above Dayville	2	111	106

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS

OREGON

GENERAL OUTLOOK

ADEQUATE WATER SUPPLIES SHOULD BE AVAILABLE THIS COMING SUMMER. THE MOUNTAIN SNOW PACK IS ABOVE AVERAGE EVEN THOUGH WINTER PRECIPITATION AT VALLEY STATIONS HAS BEEN BELOW NORMAL. STORAGE IS ABOVE AVERAGE IN THE MAJOR RESERVOIRS EXCEPT FOR PRINEVILLE WHICH IS NEAR NORMAL. PROSPECTIVE STREAMFLOW IS FORECAST TO BE AVERAGE OR ABOVE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Beaver Creek near Paulina	35	85	Feb.-July		41
	14.7	92	Apr.-Sept.		16.0
Crane Prairie Reservoir total Inflow	133	112	Apr.-Sept.		119
Crescent at Crescent Lake	25	119	Mar.-July		21
	26	119	Apr.-Sept.		22
Crooked near Post	148	86	Feb.-July		172
	86	94	Apr.-Sept.		91
Deschutes at Benham Falls	382	106	Apr.-July		360
	584	106	Apr.-Sept.		550
Deschutes below Snow Creek	84	114	Feb.-Sept.		74
	70	112	Apr.-Sept.		62
Deschutes, Little near La Pine	103	101	Feb.-July		102
	76	100	Apr.-July		76
Ochoco Reservoir net Inflow	33	97	Feb.-July		34
	19.5	104	Apr.-Sept.		18.8
Odell near Crescent	31	113	Apr.-Sept.		28
Squaw near Sisters	49	98	Apr.-Sept.		50
Tumalo near Bend	51	116	Apr.-Sept.		44

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	300	*	July 15
Crooked R. near Post	100	May 25	June 1
Deschutes at Bend	1500	*	July 1
Little Deschutes near La Pine	400	June 9	June 7
	200	June 20	July 8
* Issued on April 1.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Crane Prairie	55.3	56.7	57.8	42.1
Crescent Lake	86.9	84.4	86.1	45.9
Ochoco	47.5	32.8	22.1	21.2
Prineville	153.0	93.1	95.5	102.4
Wickiup	200.0	187.5	189.8	148.5

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Crooked R., Upper Deschutes River	2	102	125

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Crooked, Ochoco	4	100	90
Deschutes abv. Wickiup	3	102	121
Little Deschutes	4	105	114
Tumalo & Squaw Crs.	3	99	110

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLIES SHOULD BE NEAR AVERAGE EXCEPT ON THOSE STREAMS WHICH HEAD UP AT LOWER ELEVATIONS SUCH AS MILL CREEK. THE SNOWPACK ON MT. HOOD IS NEAR AVERAGE EXCEPT AT THE LOW ELEVATION COURSES WHERE IT IS ABOUT TWO THIRDS OF NORMAL. WINTER PRECIPITATION TO DATE HAS BEEN NEAR NORMAL. PROSPECTIVE STREAMFLOW FORECAST TO BE AVERAGE TO BELOW.

10 0 10 20 MILES
SCALE 1:1,000,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Hood River near Tucker Bridge	257	90	Apr.-July		286
	299	90	Apr.-Sept.		332
Hood, West Fork near Dee	118	89	Apr.-July		132
	139	90	Apr.-Sept.		154
White below Tygh Valley	118	100	Apr.-July		118
	133	100	Apr.-Sept.		133

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	* 38	July 15-31	**39
* Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake (Wasco)	11.9	9.9	9.0	2.2

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Hood River	4	105	96
Mile Creeks	-	---	--
White River	3	108	102

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLIES ALONG THE LOWER COLUMBIA SHOULD BE CLOSE TO NORMAL. THE SNOW PACK GENERALLY RANGES FROM NEAR AVERAGE TO ABOVE THROUGHOUT THE BASIN. AVERAGE SNOW COVER EXISTS ON THE CLARK'S FORK IN MONTANA, ON IDAHO'S CLEARWATER AND SALMON RIVERS, ON THE YAKIMA, SPOKANE, WENATCHEE AND METHOW IN WASHINGTON AND MOST STREAMS THAT DRAIN FROM OREGON INTO THE COLUMBIA. ABOVE AVERAGE SNOW WAS MEASURED ON THE UPPER COLUMBIA AND OKANOGAN RIVERS IN CANADA, UPPER SNAKE IN WYOMING AND IDAHO, AND THE BITTERROOT AND BLACKFOOT RIVERS IN MONTANA. MOST OF THE ABOVE MENTIONED STREAMS ARE FORECAST TO FLOW NEAR AVERAGE TO ABOVE THIS COMING SUMMER. AS A RESULT, THE FLOWS ALONG THE LOWER COLUMBIA SHOULD ALSO BE NEAR AVERAGE.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Sandy River	2	112	109

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acres Feet	Percent of Average		Last Year	Average ^c
Columbia at The Dalles	72,400	99	Apr.-June	73,078	73,160
Sandy River near Marmot	105,200	101	Apr.-Sept.	109,012	104,426
	338	99	Apr.-July		342
	393	99	Apr.-Sept.		398

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 A F)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT.	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 23
1960	97,000	64,000	48,000	442	June 6
1961	101,400	74,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,137	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,300	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,300	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE (Weather Bu)	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
		118.9	96.0	91.0	77.0	62.0	52.0	47.0
		RIVER MILES						
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.5
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clackamas at Estacada	586	87	Apr.-July		674
	686	87	Apr.-Sept.		789
Clackamas above Three Lynx	430	85	Apr.-July		506
	513	85	Apr.-Sept.		604
McKenzie at McKenzie Bridge	466	103	Apr.-July		453
	615	103	Apr.-Sept.		598
McKenzie near Vida	1,067	103	Apr.-July		1,035
	1,302	103	Apr.-Sept.		1,262
McKenzie, So. Fork near Rainbow	234	112	Apr.-July		210
	262	110	Apr.-Sept.		239
Oak Grove Fork above Power Intake	110	89	Apr.-July		123
	146	90	Apr.-Sept.		162
Row near Dorena	83	85	Apr.-July		98
	87	85	Apr.-Sept.		102
Santiam, North at Mehama	765	100	Apr.-July		765
	872	100	Apr.-Sept.		872
Santiam, South at Waterloo	536	95	Apr.-July		564
	577	93	Apr.-Sept.		623
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	717	106	Apr.-July	836	678
	810	104	Apr.-Sept.	943	779
Willamette, No. Fk. of Mid. Fk. near Oakridge	196	104	Apr.-July		189
	213	102	Apr.-Sept.		209
Willamette at Salem	4,660	106	Apr.-July		4,397
	5,200	105	Apr.-Sept.		4,943

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Clackamas River	2	136	75
McKenzie River	3	110	116
Row River	2	93	83
Santiam River	4	113	95
Willamette, Mid. Fk.	5	103	115

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Blue River	85.6*	4.8	4.6	--
Cottage Grove	30.0*	0.2	1.0	3.8
Cougar	155.2*	9.0	20.9	34.2
Detroit	299.9*	16.8	62.2	60.0
Dorena	70.5*	2.3	1.6	15.3
Fall Creek	115.0*	1.2	6.8	21.9
Fern Ridge	94.2*	3.3	5.5	24.8
Foster	30.0*	0.6	0.0	2.1
Green Peter	270.0*	7.3	49.5	73.3
Hills Creek	200.0*	23.8	12.8	38.3
Lookout Point	337.2*	24.4	20.9	64.8
Timothy Lake	61.7	61.0	59.2	49.9
Henry Hagg Lake	53.0	34.6	--	--
* Multiple purpose reservoir--space reserved primarily for flood runoff.				

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

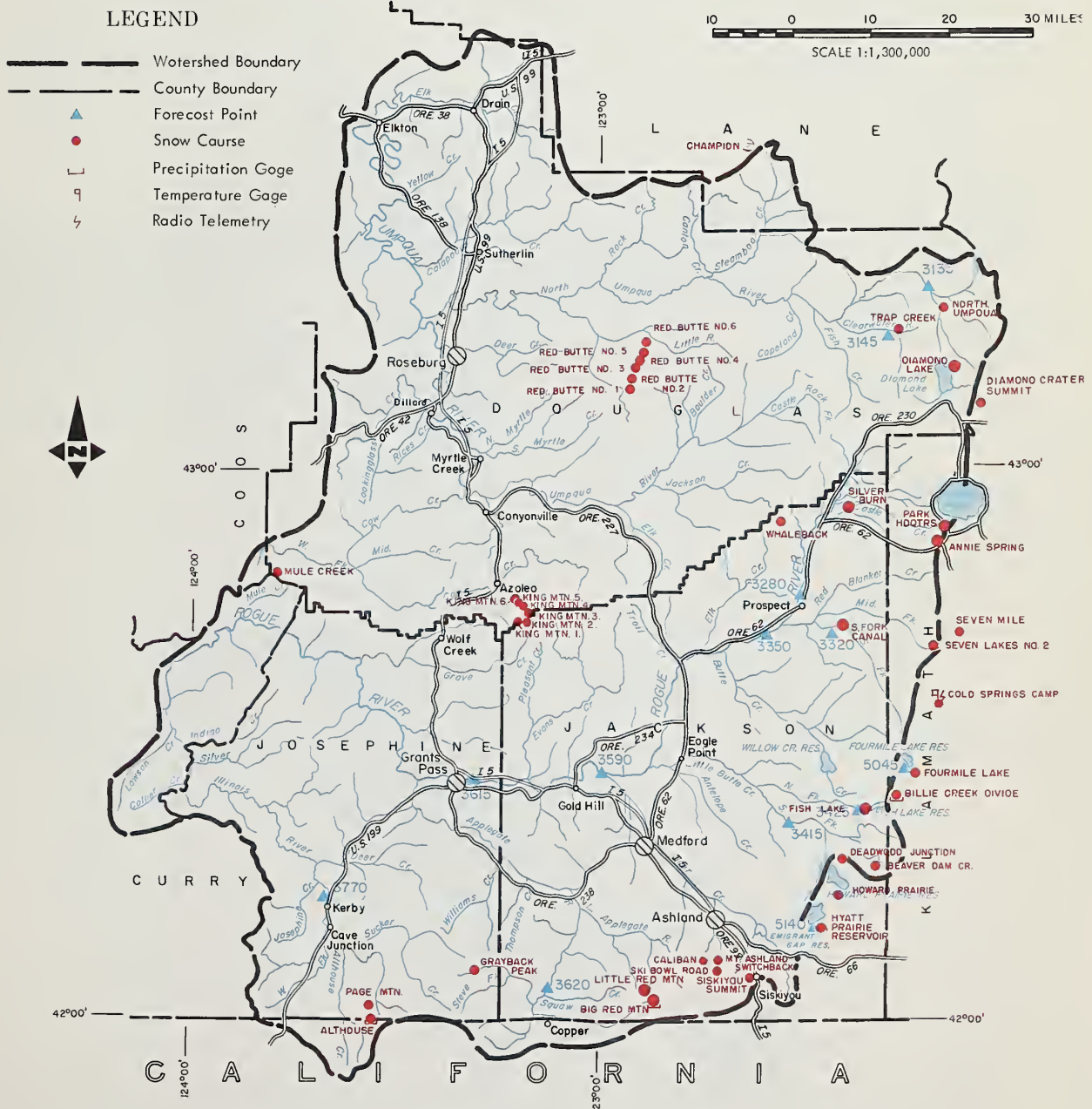
ROGUE, UMPQUA, WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLIES SHOULD BE ADEQUATE THIS SUMMER EXCEPT ON STREAMS HEADING IN THE SISKIYOU'S AND THOSE ORIGINATING AT THE LOWER ELEVATIONS IN THE CASCADES. THE SNOWPACK IS AVERAGE ON MOST WATERSHEDS. EXCEPTIONS INCLUDE SNOW COVER ON THE ILLINOIS, APPLGATE AND OTHER LOW ELEVATION STREAMS.

RESERVOIR STORAGE IS GOOD WITH ALL MAJOR RESERVOIRS CONTAINING MORE THAN NORMAL AMOUNTS.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Applegate near Copper	93	70	Apr.-Sept.		133
Clearwater above Trap Creek	78	113	Apr.-Sept.		69
Fourmile Lake net Inflow	4.6	107	Apr.-Sept.		4.3
Hyatt Reservoir net Inflow	5.0	109	Apr.-July		4.6
Illinois River near Kerby	147	77	Apr.-July		191
	152	77	Apr.-Sept.		197
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	13.0	95	Apr.-Sept.		13.7
Little Butte, S. Fk. near Lake Creek	33	108	Apr.-Sept.		28
Rogue above Prospect	270	106	Apr.-July		256
Rogue, South Fork near Prospect	66	110	Apr.-July		61
	77	108	Apr.-Sept.		72
Rogue at Raygold near Central Point	786	107	Apr.-July	1,030	735
	943	106	Apr.-Sept.	1,209	890
Rogue at Grants Pass	753	101	Apr.-July		749
	893	100	Apr.-Sept.		890
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls	175	109	Apr.-Sept.		160

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	May 26	May 27
Rogue at Raygold	1200	Aug. 15	Aug. 7
	* 1871	July 1	
	* 1200	Aug. 15	
*Average daily cfs forecast to flow on this date.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average c
Emigrant Lake	39.0	24.0	20.7	23.1*
Fish Lake	8.0	7.1	7.7	5.3
Fourmile Lake	16.1	14.2	--	8.6
Howard Prairie	60.0	50.7	40.0	36.5
Hyatt Prairie	16.1	12.9	10.9	10.5
*Average for years of record (in base period) after reconstruction.				

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
Applegate	3	66	46
Bear Creek	2	68	49
Butte Creek	4	101	126
Illinois River	3	48	21
North Umpqua	3	97	134
Rogue River	5	98	124

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLIES SHOULD BE ADEQUATE FOR USERS WITH ACCESS TO STORED WATER. SHORTAGES WILL OCCUR FOR THOSE DEPENDENT ON DIRECT DIVERSION ESPECIALLY IN THE SPRAGUE BASIN. THE SNOW-PACK IS NEAR NORMAL IN THE CASCADES AND 50 TO 80 PERCENT ON THE LOST AND SPRAGUE RIVERS. RESERVOIR STORAGE IS GOOD WITH CLEAR LAKE AND GERBER BOTH STORING ABOVE AVERAGE AMOUNTS. STREAMFLOW WILL BE BELOW AVERAGE THIS SUMMER.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Clear Lake Reservoir Inflow	41	44	Feb.-July		92
Gerber Reservoir Inflow	30	70	Feb.-July		43
Sprague near Chiloquin	282	80	Feb.-Sept.		353
	194	80	Apr.-Sept.		242
Upper Klamath Lake net Inflow	764	85	Feb.-Sept.	1,134	899
	456	85	Apr.-Sept.	742	536
Williamson below Sprague River	551	90	Feb.-Sept.		615
	376	91	Apr.-Sept.		414

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Upper Klamath	1	130	90

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c
Clear Lake	440.2	287.2	277.7	205.6
Gerber	94.0	53.5	44.3	42.2
Upper Klamath Lake	584.0	326.4	322.7	358.9

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Lost River	4	50	58
Sprague River	3	108	80
Upper Klamath	6	100	98
Williamson River	3	91	90

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		FORECAST PERIOD	PAST RECORD	
	FORECAST			THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Chewaucan near Paisley	62	71	Mar.-July	98	87
Deep above Adel	47	60	Mar.-July		78
Drews Reservoir net Inflow	24	60	Mar.-July		40
Honey Creek near Plush	10.4	53	Mar.-July		19.5
Silver Creek near Silver Lake	8.9	65	Apr.-July		13.7
Twentymile near Adel	13.0	50	Mar.-July		26

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c

Chewaucan, Silver Creek, Drew Creek	1	130	90
Honey, Deep, 20-Mi. Cr.	1	104	92

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average ^c

Cottonwood	8.7	1.7	--	2.9*
Drews	63.0	36.0	29.9	34.3
Thompson Valley	19.5	11.3	--	--
*Average for years of record (in base period) after reconstruction.				

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c

Chewaucan River	3	108	80
Deep Creek	2	78	80
Drew Creek	3	85	67
Honey Creek	3	84	66
Silver Creek	3	74	53
Twentymile Creek	2	80	88

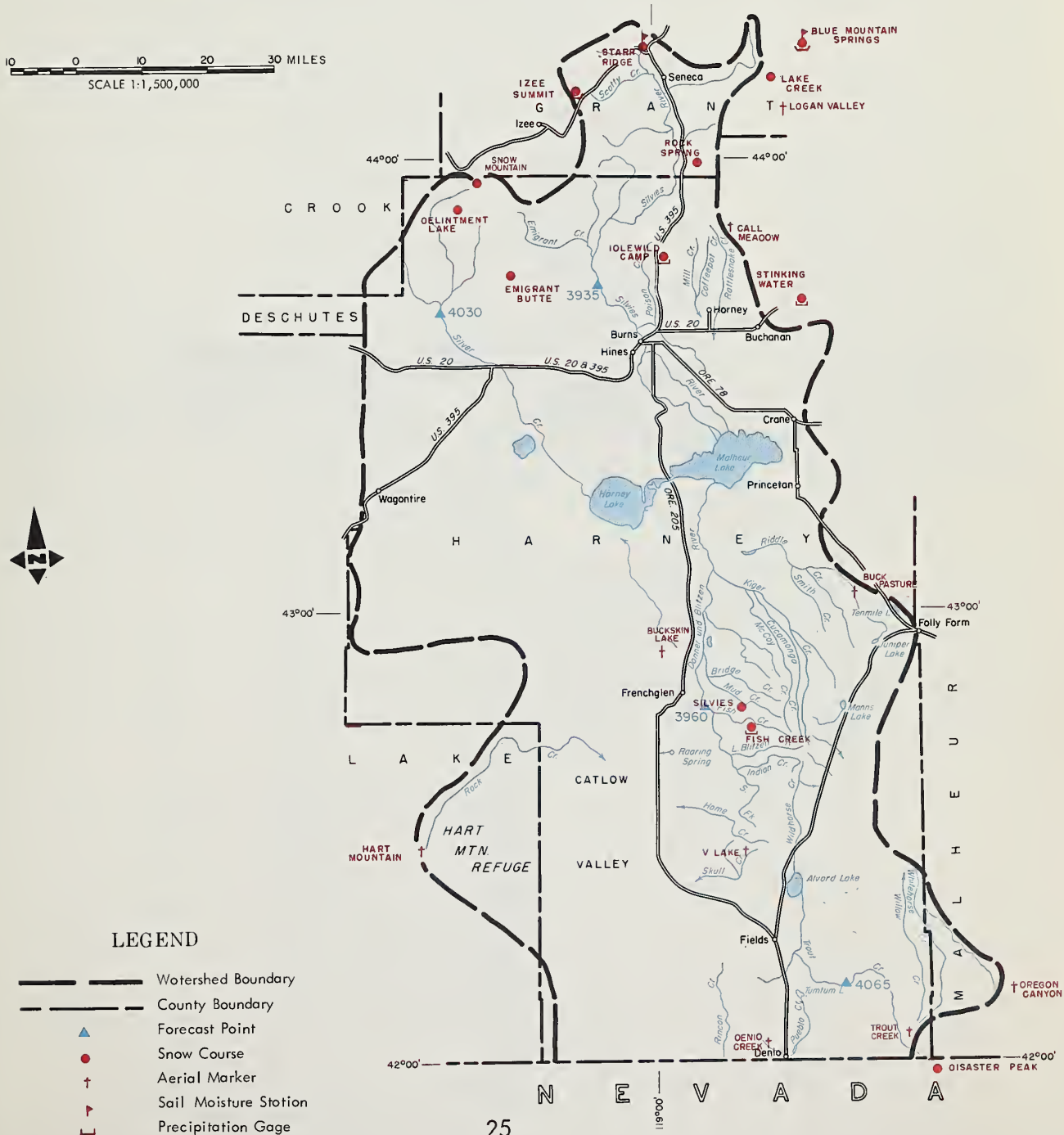
(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK HARNEY BASIN WATERSHEDS OREGON

GENERAL OUTLOOK

WATER SUPPLIES SHOULD BE NEAR NORMAL. THE SNOW COVER IS AVERAGE ON THE SILVIES AND IN THE STEENS MOUNTAINS. WINTER PRECIPITATION HAS BEEN BELOW AVERAGE, HOWEVER, SOIL MOISTURE UNDER THE SNOWPACK IS AVERAGE.

SUMMER STREAMFLOW IS FORECAST TO BE NEAR AVERAGE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average ^c
Donner und Blitzen near Frenchglen	54	98	Mar.-July		55
Silver near Riley	52	98	Apr.-Sept.		53
Silvies River near Burns	15.3	98	Apr.-July		15.6
	93	99	Mar.-July		94
	71	95	Apr.-Sept.		74
Trout Creek near Denio	7.4	88	Mar.-July		8.4

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average ^c
Silvies River, Silver Cr.	2	120	106

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average ^c
Donner und Blitzen R.	4	74	110
Silver Creek	3	95	90
Silvies River	3	96	108
Trout Creek	3	67	105

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1976

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont (In.)	Water Content (inches)	
				Last Yr.	Ave. C
OWYHEE, MALHEUR WATERSHEDS					
Antelope Ridge (Ida.)	e			---	3.4 ^b
Battle Creek (Ida.)	1/19	4	1.0	3.8	2.8
Bear Creek (Nev.)	1/31	36	11.6	---	13.1
Big Bend (Nev.)	1/26	20	4.8	8.2	5.7
Blue Mountain Springs	1/27	40	11.7	10.8	11.7
Blue Mtn. Springs Pillow*	e			32.7	---
Buck Pasture	1/26	11	2.8	3.8	1.3
Buckskin, Lower (Nev.)	e			---	---
Buckskin, Upper (Nev.)	e			---	---
Bull Basin (Ida.)	1/19	6	1.5	3.8	1.0
Bully Creek	1/19	6	1.5	---	2.4
Call Meadow	1/19	10	2.8	---	2.9
Columbia Basin (Nev.)	1/27	27	7.6	7.0	6.8 ^b
Cottonwood-Indian	1/19	T	0.0	T	0.9 ^b
Disaster Peak (Nev.)	e			---	---
Eldorado Pass	1/27	11	3.0	4.2	3.1
Fawn Creek (Nev.)	1/27	9	2.5	5.2	3.0 ^b
Fish Creek	e			18.6	---
Fish Creek***	1/26	57	18.8	18.6	14.6 ^b
Flag Prairie	1/19	13	3.6	5.8	3.8
Fox Creek (Nev.)	e			---	---
Fry Canyon (Nev.)	1/26	18	4.9	8.0	4.9
Gold Creek (Nev.)	1/26	15	3.8	---	3.8
Granite Peak (Nev.)	e			---	10.2
Hyde Pasture (Ida.)	1/19	8	2.0	3.8	4.2
Jack Creek, Lower (Nev.)	1/26	13	3.3	---	---
Jack Creek, Upper (Nev.)	1/26	21	6.0	7.2	4.7
Jack Peak (Nev.)	1/26	47	15.4	---	---
Lake Creek R.S.	1/27	32	8.2	9.0	7.2
Laurel Draw (Nev.)	e			7.6	5.2 ^b
Logan Valley	1/19	27	7.6	---	5.6
Lookout Butte	1/19	0	0.0	T	0.3
Louse Canyon	1/19	3	0.6	8.0	2.2
Martin Creek (Nev.)	e			---	7.0
Merritt Mountain (Nev.)	1/27	15	4.2	5.8	3.9 ^b
Midas (Nev.)	1/27	0	0.0	---	2.4 ^b
Mud Flat (Ida.)	e			---	---
Oregon Canyon	1/26	12	3.4	3.8	3.5
Quinn Ridge (Nev.)	1/19	4	1.3	3.8	1.4
Red Canyon (Ida.)	1/19	18	5.7	7.7	5.4
Rock Spring	1/27	17	5.2	4.9	4.0
Rodeo Flat (Nev.)	1/26	15	4.6	8.2	3.9
76 Creek (Nev.)	1/31	24	5.8	8.0	7.6
Silver City (Ida.)	1/30	32	9.1	9.6	11.1 ^b
Silver City Aerial	1/19	36	11.5	---	---
Silvies	e			---	---
Silvies***	1/26	18	5.0	7.0	5.6
South Mountain #2 (Ida.)	1/31	25	8.0	10.1	9.0
Stag Mountain (Nev.)	1/27	5	1.2	5.4	3.2
Stinking Water	1/29	11	1.9	3.8	2.2
Succor Creek (Ida.)	1/19	13	3.6	4.2	4.2
Taylor Canyon (Nev.)	1/26	9	1.7	6.4	3.6
Toe Jam (Nev.)	1/27	18	4.9	7.2	6.4 ^b
Tremewan Ranch (Nev.)	1/26	4	0.7	1.0	1.2
Triangle (Ida.)	1/19	T	0.0	1.9	---
Trout Creek	1/26	17	4.8	7.7	3.9
"V" Lake	1/26	10	2.8	9.0	3.4
Vaught Ranch (Ida.)	1/19	3	0.6	5.4	2.8
War Eagle (Ida.)	1/19	69	22.1	14.7	17.7

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. C
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS					
Aneroid Lake #1	1/29	65	22.6	21.8	25.4
Aneroid Lake #2	1/28	56	19.8	19.0	23.0
Anthony Lake	1/27	62	21.8	20.2	16.9
Bald Mountain (Ore.)	1/28	51	17.8	18.0	16.6
Beaver Reservoir	1/26	33	9.5	9.7	9.0
Big Sheep	1/28	60	19.8	15.3	21.0
Blue Mtn. Summit	1/26	---	7.6	8.2	6.3
Bourne	1/26	44	12.9	12.4	11.0
County Line	1/30	16	4.6	4.7	4.0
Dooley Mountain	1/29	18	5.1	5.4	6.3
Eilertson Meadows	1/26	26	6.3	7.9	8.6
Eldorado Pass	1/27	11	3.0	4.2	3.1
Gold Center	1/26	---	10.5 ^a	9.7	9.3
Goodrich Lake	1/26	56	20.4	22.8	32.1
Little Alps	1/27	27	8.4	8.6	9.1 ^b
Little Antone	1/27	17	4.8	7.4	6.7
Little Antone Alt.	1/27	21	6.1	7.8	---
Lucky Strike	1/28	30	9.1	9.0	10.9 ^b
Meacham	1/28	31	10.4	9.2	6.9
Mirror Lake	1/28	155	54.2	49.3	48.0
Moss Spring	1/29	57	18.8	21.8	15.0
Schneider Meadow	1/28	64	19.9	18.7	21.2
Schoolmarm	1/30	--	3.8 ^a	3.4	3.5
Standley	1/28	78	27.3	21.6	19.5
Taylor Green	1/29	41	12.8	12.8	11.6 ^b
Tipton	1/26	32	9.2	9.7	7.7
Tipton Snow Pillow*	1/26	--	9.5	8.1	---
Tollgate	1/28	61	20.7	19.6	16.9
TV Ridge	1/28	45	14.8	14.4	13.7
West Eagle Meadows	1/28	60	19.8	---	---
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS					
Arbuckle Mountain	1/28	20	7.6	5.5	7.6
Arbuckle Mountain Pillow*	1/28	42	12.3	11.7	---
Blue Mountain Camp	1/28	42	15.1	13.6	11.2 ^b
Bowman Springs Pillow	1/28	26	7.8		
Butte Creek Summit	^e			1.4	---
Emigrant Springs	1/26	19	6.8	4.3	4.1
High Ridge Pillow*	2/4	74	26.6	---	---
Lucky Strike	1/28	30	9.1	9.0	10.9
Meacham	1/28	31	10.4	9.2	6.9
Tollgate	1/28	61	20.7	19.6	16.9

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1976

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. C

UPPER JOHN DAY WATERSHEDS

Anthony Lake	1/27	62	21.8	20.2	16.9
Arbuckle Mountain	1/28	20	7.6	5.5	7.6
Arbuckle Mt. Pillow*	1/28	42	12.3	11.7	---
Blue Mountain Springs	1/27	40	11.7	10.8	11.7
Blue Mt. Springs Pillow*	e			32.7	---
Blue Mountain Summit	1/26	---	7.6	8.2	6.3
Butte Creek Summit	e			1.4	---
Derr	1/26	21	4.9	6.9	7.0
Gold Center	1/26	---	10.5 ^a	9.7	9.3
Indian Creek Butte	1/19	68	22.4	21.0	16.9
Izee Summit	2/1	22	6.0	7.5	5.6
Lucky Strike	1/28	30	9.1	9.0	10.9 ^b
Marks Creek	1/28	13	3.0	3.4	3.1
Ochoco Meadows	1/30	27	8.0	7.6	6.8
Olive Lake	e			11.8	13.6 ^b
Schoolmarm	1/30	---	3.8 ^a	3.4	3.5
Snow Mountain	1/28	33	9.0	7.1	10.6
Snow Mountain Pillow	1/28	30	7.8	6.3	---
Starr Ridge	2/1	18	4.9	5.9	4.4
Tipton	1/26	32	9.2	9.7	7.7
Tipton Snow Pillow*	1/26	---	9.5	8.1	---

UPPER DESCHUTES, CROOKED WATERSHEDS

Bald Peter	1/28	77	27.4	23.1	---
Caldwell Ranch	1/26	27	7.9	9.0	8.0 ^b
Cascade Summit	1/29	69	25.2	23.8	19.2
Chemult	1/28	16	4.6	6.0	8.1
Chemult Alternate	1/28	21	6.1	7.7	---
Derr	1/26	21	4.9	6.9	7.0
Hogg Pass	1/29	72	26.0	25.1	27.5
Hungry Flat	1/30	11	3.4	6.1	4.9
Irish-Taylor Pillow	1/30	84	30.4	32.1	25.4
Lionshead	1/28	27	8.6		
Marks Creek	1/28	13	3.0	3.4	3.1
New Crescent Lake	1/28	34	11.8	11.0	10.2
New Dutchman Flat #2	1/30	102	41.6	37.8	32.9
Ochoco Meadows	1/30	27	8.0	7.6	6.8
Racing Creek	1/28	26	8.4	10.4	---
Snow Mountain	1/28	33	9.0	7.1	10.6
Snow Mountain Pillow	1/28	30	7.8	6.3	---
Summit Lake	1/27	91	32.0	29.2	27.2 ^b
Summit Lake Pillow**	e			29.1	---
Tamarack	1/27	21	5.8	5.8	4.1
Tangent	1/30	45	15.6	17.5	16.0
Three Creek Butte	1/29	16	4.9	8.6	8.5
Three Creek Meadow	1/29	30	10.5	13.3	12.7
Three Creek Mdw. Pillow	1/29	42	13.2	---	---
Waldo Lake	1/26	69	23.5	24.6	20.0
Whitewater Meadow	1/28	0	0.0	3.1	---

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. C

HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS

Brooks Meadows	e			---	---
Clear Lake	1/30	11	3.6	4.7	7.3
Clear Lake (Experimental)	1/30	30	11.2	10.4	10.9
Greenpoint	1/26	17	7.6	---	11.5
Greenpoint Pillow	e			---	---
Knebal Springs	e			---	---
Mt. Hood Test Site**	1/31	--	44.3	41.0	41.3
Mud Ridge	1/29	54	23.4	---	---
Red Hill	1/31	49	20.6	21.1	25.2
Red Hill Pillow	e			---	---
Still Creek	1/29	42	17.2	15.0	15.6
Switchback	1/26	15	6.4	---	10.1 ^b
Tilly Jane	1/25	57	21.6	26.4	25.7
Ulrich Ranch Junction	e			---	---
Umbrella Falls	1/30	116	47.6	48.8	---

WILLAMETTE WATERSHED

Cascade Summit	1/29	69	25.2	23.8	19.2
Champion	1/30	46	17.8	17.2	17.8 ^b
Clackamas Lake	e			---	---
Clear Lake	1/30	11	3.6	4.7	7.3
Clear Lake (Experimental)	1/30	30	11.2	10.4	10.9
Dead Horse Grade	1/29	29	11.6	11.4	11.2 ^b
Detroit (Town)	1/29	0	0.0	0.0	1.8 ^b
Detroit Dam	1/29	0	0.0	0.0	0.8
Golden Curry Creek	1/30	T	0.0	---	3.7
Hogg Pass	1/29	72	26.0	25.1	27.5
Lake Harriet	e			1.6	2.0
Laurel Mountain	1/30	0	0.0	1.4	---
Layng Creek	1/30	0	0.0	0.1	0.2
Lookout Point Dam	1/29	0	0.0	0.2	0.3
Lost Creek Ranch	1/29	0	0.0	2.1	3.9 ^b
Lund Park	1/30	0	0.0	0.1	0.4 ^b
Marion Forks	1/29	26	9.3	6.2	9.1 ^b
Marys Peak	1/30	1	0.2	1.6	7.5
McCredie Springs	1/29	0	0.0	0.2	0.5
McKenzie	1/29	89	38.0	28.1	29.2
McKenzie Bridge	1/29	0	0.0	0.0	0.7
Mill City	1/29	0	0.0	0.0	0.5
Mt. Hood Test Site**	1/31	--	44.3	41.0	41.3
Mud Ridge	1/29	54	23.4	---	---
Oakridge	1/29	0	0.0	0.1	0.2
Peavine Ridge Pillow**	e			6.1	12.3 ^b
Railroad Overpass	1/29	T	0.0	1.2	1.8
Saddle Mountain Pillow**	1/31	--	1.4	0.7	---
Salt Creek Falls	1/29	32	10.2	9.3	10.6
Santiam Junction	1/29	44	16.7	15.9	16.7
Santiam Junction Pillow**	1/29	--	2.8	---	---
Seine Creek Pillow**	1/30	--	3.8 ^a	0.0	---
Still Creek	1/29	42	17.2	15.0	15.6
Summit Lake	1/27	91	32.0	29.2	27.2 ^b
Summit Lake Pillow**	e			29.1	---
Timothy Lake	e			12.6	9.8
Valsetz Summit	1/30	0	0.0	1.0	---
Vida	1/29	0	0.0	0.0	0.5
Waldo Lake	1/26	69	23.5	24.6	20.0
Weaver Creek	1/30	0	0.0	0.2	0.6
White Branch Slide	1/29	14	4.0	9.1	5.6
Whitewater Bridge	1/29	10	3.2	1.6	5.0

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1976

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. C
ROGUE, UMPQUA WATERSHEDS					
Althouse	1/30	0	0.0	0.4	6.2
Annie Spring	1/29	82	27.3	28.4	28.7
Beaver Dam Creek	1/30	33	12.9	13.3	9.6
Big Red Mountain	1/27	32	11.4	14.6	20.7
Billie Creek Divide	1/26	54	18.6	18.4	14.
Billie Creek Divide Pil.*				20.9	---
Caliban	1/28	43	12.3	15.7	24.7
Caliban (Alternate)	1/28	44	12.6	17.8	---
Champion	1/30	46	17.8	17.2	17.8
Cold Spgs. Camp Pillow**	1/27	80	28.6	---	---
Deadwood Junction	1/30	23	8.3	9.6	6.5
Diamond-Crater Summit	1/27	--	25.0	22.9	19.5
Diamond Lake	1/30	--	16.0	16.1	13.7
Fish Lake	1/27	39	12.6	13.3	9.4
Fourmile Lake	1/26	38	15.3	13.8	15.8
Grayback Peak	1/22	19	6.3	12.4	19.2
Howard Prairie Reservoir	1/30	20	6.2	7.8	6.5
Hyatt Prairie	1/30	14	5.2	7.6	6.0
King Mountain #1	1/27	0	0.0	0.5	---
King Mountain #2	1/27	0	0.0	2.8	---
King Mountain #3	1/27	0	0.0	4.5	1.0
King Mountain #4	1/27	0	0.0	0.2	0.1
King Mountain #5	1/27	0	0.0	T	0.1
King Mountain #6	1/27	0	0.0	0.0	0.0
Little Red Mountain	1/26	26	9.0	13.7	18.1
Mt. Ashland Switchback	1/28	43	13.3	17.3	24.4
Mule Creek	1/27	0	0.0	1.0	---
North Umpqua	1/30	41	15.4	16.0	10.3
Page Mountain	1/30	0	0.0	0.3	4.0
Park Headquarters	1/29	112	37.5	40.3	38.8
Red Butte #1	1/27	21	7.8	6.1	10.0
Red Butte #2	1/27	8	3.5	5.7	6.7
Red Butte #3	1/27	0	0.0	1.2	4.1
Red Butte #4	1/27	0	0.0	0.2	2.9
Red Butte #5	1/27	0	0.0	0.2	0.6
Red Butte #6	1/27	0	0.0	T	T
Seven Mile	1/28	72	24.4	22.3	---
Silver Burn	1/30	38	12.3	13.7	9.9
Siskiyou Summit	1/27	6	2.2	5.6	7.0
Ski Bowl Road	1/28	37	10.3	15.0	20.5
South Fork Canal	No Report			---	3.2
Trap Creek	1/30	33	12.5	13.0	8.8

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR			PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave ^c
KLAMATH WATERSHEDS					
Annie Spring	1/29	82	27.3	28.4	28.7
Billie Creek Divide	1/26	54	18.6	18.4	14.7
Billie Creek Div. Pillow*				20.9	---
Chemult	1/28	16	4.6	6.0	8.1
Chemult (Alternate)	1/28	21	6.1	7.7	---
Chiloquin (PP&L)	No Report			1.5	1.8
Cold Spgs. Camp Pillow**	1/27	80	28.6	---	---
Crazyman Flat***	1/26	18	5.0	5.2	7.4
Crowder Flat (Calif.)	1/26	1	0.2	3.1	3.2
Crystal (PP&L)	1/30	14	6.0	7.5	6.8
Diamond-Crater Summit	1/27	--	25.0	22.9	19.5
Diamond Lake Junction (97)	1/26	--	3.8 ^a	5.2	4.7
Dog Hollow	1/26	3	0.6	1.1	1.2
Finley Corrals***	1/26	44	13.2	11.5	11.8
Fort Klamath (PP&L)	No Report			4.2	3.6
Fourmile Lake	1/26	38	15.3	13.8	15.8
Gerber	2/2	T	0.0	4.7	2.5
Harriman (PP&L)	1/31	8	3.4	6.6	3.5
Howard Prairie	1/30	20	6.2	7.8	6.5
Hyatt Prairie Reservoir	1/30	14	5.2	7.6	6.0
Kirk (PP&L)	No Report			---	5.7
Park Headquarters	1/29	112	37.5	40.3	38.8
Quartz Mountain	1/29	13	3.0	4.6	5.4
Seven Mile	1/28	72	24.4	22.3	---
State Line (Calif.)	1/26	22	6.2	5.2	6.9
Strawberry	1/26	13	3.1	4.7	6.0
Strawberry***	1/26	12	3.4	2.8	6.1
Summer Rim ^e				---	---
Summer Rim***	1/26	34	10.2	6.6	10.3
Summer Rim Pillow*	^e			---	---
Sycan Flat	1/26	12	3.4	4.2	6.3
Taylor Butte	1/29	7	2.6	3.4	4.1
Taylor Butte Pillow*					
LAKE COUNTY, GOOSE LAKE WATERSHEDS					
Adin Mountain (Calif.)	1/27	12	2.6	7.6	8.9
Bald Mountain (Nev.)	1/26	4	1.0	---	---
Bear Flat Meadow	1/26	12	3.4	5.2	6.9
Camas Creek	1/29	15	5.0	5.2	7.6
Cedar Pass (Calif.)	1/23	32	9.6	13.5	10.6
Colvin Creek	1/26	4	0.8	2.8	4.2
Cox Flat	1/26	11	3.1	6.1	5.8
Crowder Flat (Calif.)	1/26	1	0.2	3.1	3.2
Dismal Swamp (Calif.)	1/26	38	11.4	13.4	10.1
Finley Corrals***	1/26	44	13.2	11.5	11.8
Hart Mountain	1/26	1	0.2	1.2	1.0
Little Bally Mtn. (Nev.)	1/26	9	2.2	3.1	2.0
Mt. Bidwell (Calif.) ^e				---	---
North Star (Calif.) ^e				---	---
Patton Meadows***	1/26	36	10.8	8.7	12.5
Quartz Mountain	1/29	13	3.0	4.6	5.4
Rogger Meadow	1/26	34	9.5		
Sherman Valley	1/26	25	7.0	7.2	7.7
Silver Creek	1/25	3	1.0	1.8	2.7
State Line (Calif.)	1/26	22	6.2	5.2	6.9
Strawberry	1/26	13	3.1	4.7	6.0
Strawberry***	1/26	12	3.4	2.8	6.1
Summer Rim ^e				---	---
Summer Rim***	1/26	34	10.2	6.6	10.3
Summer Rim Pillow*	^e			---	---
Sycan Flat	1/26	12	3.4	4.2	6.3

FEBRUARY 1, 1976

FEBRUARY 1, 1976

SNOW		THIS YEAR		PAST REC.		SNOW		THIS YEAR		PAST REC.	
DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)		DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)	
				Last Yr.	Ave. ^c					Last Yr.	Ave. ^c
HARNEY BASIN WATERSHED											
Blue Mountain Springs	1/27	40	11.7	10.8	11.7						
Blue Mtn. Springs Pillow*	^e			32.7	---						
Buck Pasture	1/26	11	2.8	3.8	1.3						
Buckskin Lake	1/26	3	0.6	0.0	0.9						
Call Meadows	1/19	10	2.8	---	2.9						
Delintment Lake	1/28	--	4.7 ^a	6.3	5.3 ^b						
Denio Creek	1/26	1	0.2	1.0	0.6						
Disaster Peak (Nev.)	^e			---	---						
Emigrant Butte	1/28	14	3.4	4.6	3.2 ^b						
Fish Creek	^e			18.6	---						
Fish Creek ***	1/26	57	18.8	18.6	14.6 ^b						
Hart Mountain	1/26	1	0.2	1.2	1.0						
Idlewild Camp Alternate	1/29	11	3.2	4.7	---						
Izee Summit	2/1	22	6.0	7.5	5.6						
Lake Creek R.S.	1/27	32	8.2	9.0	7.2						
Oregon Canyon	1/26	12	3.4	3.8	3.5						
Rock Spring	1/27	17	5.2	4.9	4.0						
Silvies	^e			---	---						
Snow Mountain	1/28	33	9.0	7.1	10.6						
Snow Mountain Pillow	1/28	30	7.8	6.3	---						
Starr Ridge	2/1	18	4.9	5.9	4.4						
Stinking Water	1/29	11	1.9	3.8	2.2						
Trout Creek	1/26	17	4.8	7.7	3.9						
"V" Lake	1/26	10	2.8	9.0	3.4						
LOWER COLUMBIA WATERSHED											
Blazed Alder	1/31	--	18.4	---	---						
Mt. Hood Test Site	1/31	--	44.3	41.0	41.3						
Mud Ridge	1/29	54	23.4	---	---						
North Fork Reservoir	^e			14.5	---						
Still Creek	1/29	42	17.2	15.0	15.6						
<p>T Trace</p> <p>* Manometer reading</p> <p>** Telemetry reading</p> <p>*** Aerial reading</p>											
<p>(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.</p>											

[illegible]

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 2

FEBRUARY 1, 1976

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average c
OWYHEE, MALHEUR WATERSHED							
Bear Creek (Nev.)	7800	72	16.8	e		----	----
Big Bend (Nev.)	6700	48	16.7	1/26	16.1	12.8	14.6
Blue Mountain Spring	5900	42	16.9	e		6.9	9.2
Mud Flat (Ida.)	5500	48	12.8	e		----	10.9
Rodeo Flat (Nev.)	6800	42	11.0	1/26	7.2	4.6	8.9
Taylor Canyon (Nev.)	6200	48	15.1	1/26	10.3	7.4	11.9
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	e		----	10.1
Dooley Mountain	5430	36	9.2	1/29	2.5	2.4	3.7
Emigrant Springs	3925	48	22.3	e		20.2	15.9
Ladd Summit	3730	48	18.9	2/2	10.7	9.6	10.4
Moss Springs	5850	36	25.8	1/29	14.5	12.1	14.9
Tollgate	5070	48	23.6	e		16.6	19.0
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	e		13.7	12.6
Emigrant Springs	3925	48	22.3	e		20.2	15.9
Tollgate	5070	48	23.6	e		16.6	19.0
UPPER JOHN DAY WATERSHED							
Battle Mountain Summit	4340	48	13.8	e		13.7	12.6
Blue Mountain Spring	5900	42	16.9	e		6.9	9.2
Blue Mountain Summit	5100	36	16.8	e		----	10.1
Derr	5670	24	9.0	e		7.2	8.1
Marks Creek	4540	36	14.1	1/28	11.2	8.8	11.0
Snow Mountain	6300	48	16.7	1/28	14.0	11.4	13.6
Starr Ridge	5150	36	10.6	2/1	10.3	8.9	9.3
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0	e		7.2	8.1
Marks Creek	4540	36	14.1	1/28	11.2	8.8	11.0
Snow Mountain	6300	48	16.7	1/28	14.0	11.4	13.6
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	1/29	7.7	5.9	8.5

BASIC DATA SUPPLEMENT 2

FEBRUARY 1, 1976

SOIL MOISTURE

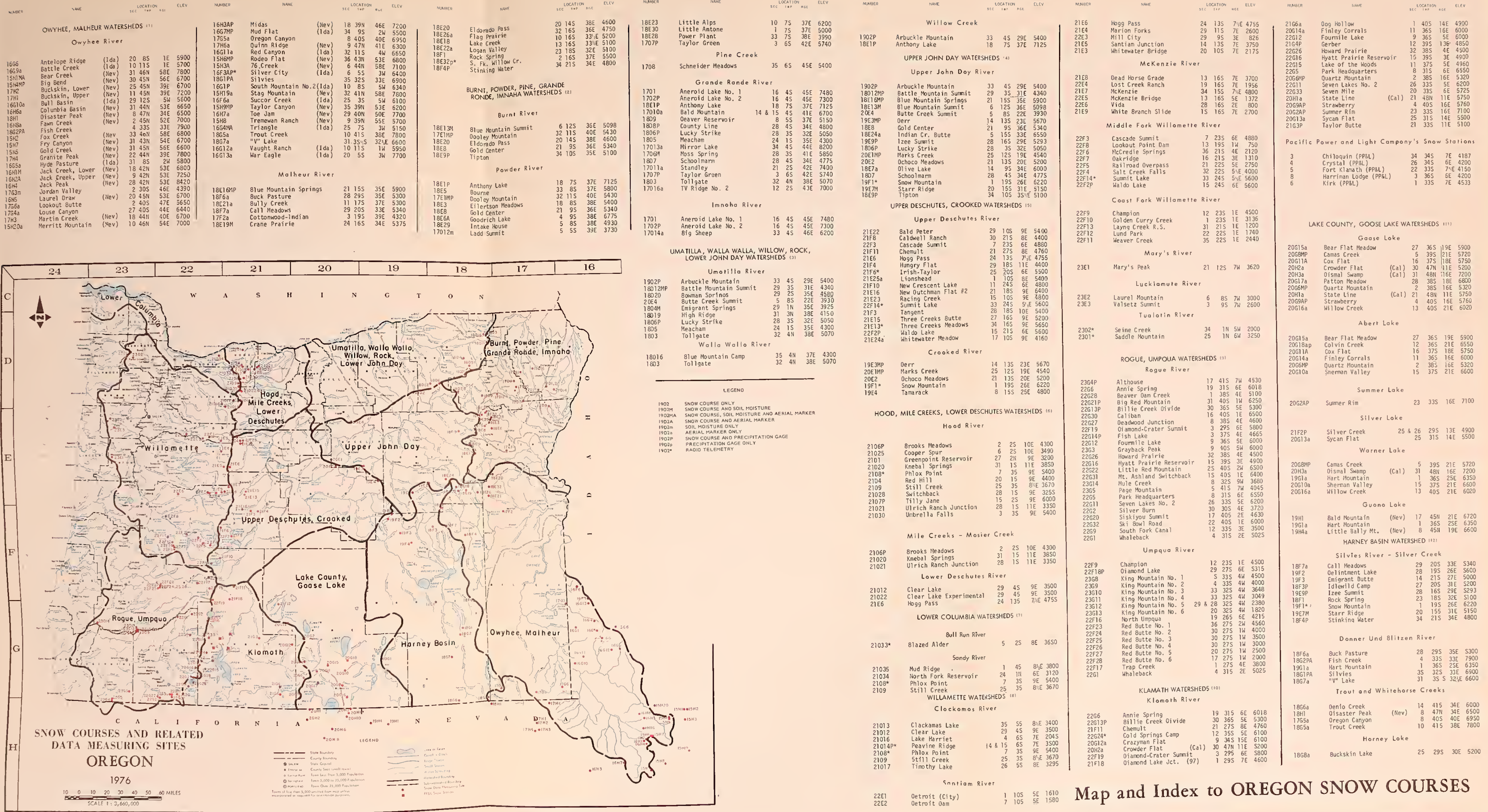
DRAINAGE BASIN and/or STATION		Profile (Inches)			Date of Survey	Soil Moisture (Inches)			
Name	Elevation	Depth	Capacity	This Year		Last Year	Average c		
LAKE COUNTY, GOOSE LAKE WATERSHEDS									
Camas Creek	5720	42	14.5	1/29	11.1	10.7	12.1		
Quartz Mountain	5230	48	15.3	1/29	7.7	5.9	8.5		
HARNEY BASIN WATERSHEDS									
Blue Mountain Spring	5900	42	16.9	e		6.9	9.2		
Silvies	6900	48	16.4	e		----	----		
Snow Mountain	6300	48	16.7	1/28	14.0	11.4	13.6		
Starr Ridge	5150	36	10.6	2/1	10.3	8.9	9.3		
Willow-Bald	5000	24	6.6	e		4.7	5.7		
(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.									

BASIC DATA SUPPLEMENT 3

FEBRUARY 1, 1976

PRECIPITATION (Inches)

PRECIPITATION (Inches)		CURRENT INFORMATION		PAST RECORD	
DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	Date of Reading	Precipitation	Last Year	Average ^c
Althouse (Josephine County)	4530	From to 1/30	13.83		
Aneroid Lake #2 (Wallowa County)	7400	From to 1/28	25.00		
Big Red Mountain (Jackson County)	6240	From to 1/27	24.00		
Derr (Wheeler County)	5800	From to 1/26	7.90		
Fish Lake (Jackson County)	4865	From 12/29 to 1/27	0.47		
Marks Creek (Crook-Wheeler Cos.)	4540	From to 1/28	7.75		
Red Hill (Hood River County)	4400	From 10/16 to 1/31	70.25		
Silver Creek (Lake County)	4900	From 12/26 to 1/25	1.32		
Strawberry (Lake County)	5760	From to 1/26	4.50		
Summit Lake (Klamath County)	5600	From 10/23 to 1/27	18.88		
<p>(a) Estimated, (b) 1958-72 adjusted average, (c) 1958-72, 15 year average, (d) Corrected to natural flow, (e) Not scheduled.</p>					



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

- Idaho Cooperative Snow Surveys
- Nevada Cooperative Snow Surveys
- Oregon State University
- Oregon Department Of Water Resources
- Soil and Water Conservation Districts of Oregon

COUNTY

- Douglas County Water Resources Survey

FEDERAL

- Department of Agriculture
 - Cooperative Extension Service
 - Forest Service
 - Soil Conservation Service
- Department of Commerce
 - NOAA, National Weather Service
- Department of the Interior
 - Bonneville Power Administration
 - Bureau of Land Management
 - Bureau of Reclamation
 - Fish and Wildlife Service
 - Geological Survey
- Department of National Defense
 - Corps of Army Engineers

PUBLIC UTILITIES

- Pacific Power and Light Company
- Portland General Electric Company
- California-Pacific Utilities Company

MUNICIPALITIES

- City of Baker
- City of La Grande
- City of The Dalles
- City of Walla Walla

IRRIGATION DISTRICTS

- Arnold Irrigation District
- Associated Ditch Companies
- Burnt River Irrigation District
- Central Oregon Irrigation District
- East Fork Irrigation District
- Grants Pass Irrigation District
- Hood River Irrigation District
- Jordan Valley Irrigation District
- Juniper Flat Irrigation District
- Lakeview Water Users, Incorporated
- Medford Irrigation District
- Middle Fork Irrigation District
- North Board of Control - Owyhee Project
- North Unit Irrigation District
- Ochoco Irrigation District
- Rogue River Valley Irrigation District
- South Board of Control - Owyhee Project
- Squaw Creek Irrigation District
- Talent Irrigation District
- Tumalo Project
- Vale - Oregon Irrigation District
- Warm Springs Irrigation District

PRIVATE ORGANIZATIONS

- The Crag Rats, Hood River, Oregon

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